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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,895	08/23/2001	Martinus Johannes Maria De Graaf	NL000480	1352

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EXAMINER

NGUYEN, TUYEN T

ART UNIT PAPER NUMBER

2432

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,895

Applicant(s)

DE GRAAF ET AL.

Examiner

TUYEN T NGUYEN

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art of figure 3 in view of Saito et al. [JP 3-241801].

Applicant's admitted prior art of figure 3 discloses a toroidal gapped core comprising:

- a substantially closed core [1];
- an air gap; and
- an insert structure [3, 4] having a concave surface.

Applicant's admitted prior art discloses the instant claimed invention except for the specific material used for the insert structure.

Saito et al. discloses a substantially closed core [12] having an air gap [15] filled with a magnetic resin spacer material [16] and a coil winding [52] wound about the closed core. Saito et al. inherently discloses a concave/convex surface at the spacer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the spacer filling material of Saito et al. in applicant's admitted prior art of figure 3 for the purpose of controlling the magnetic field of the device.

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Saito et al. as applied to claims 6-8 and 10 above, and further in view of Bizen et al. [US 6,246,172].

Applicant's admitted prior art of figure 3 in view of Saito et al. discloses the instant claimed invention except for a second air gap disposed at an angle between 5 and 355 degrees respect to the first air gap.

Bizen et al. discloses a substantially closed core [figure 2] having first and second air gaps [10] disposed at an angle between 5 and 355 degrees with one another.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include a second air gap in applicant's admitted prior art of figure 3, as modified, as suggested by Bizen et al., for the purpose of improving the Q-factor of the device.

Response to Arguments

Applicant's arguments filed 9/8/2003 have been fully considered but they are not persuasive.

Applicant argues that:

1] The office action provides no evidence to support the assertion of "Saito et al. inherently discloses a concave/convex surface at the spacer." The assertion that Saito et al. inherently discloses a concave/convex surface appears to be complete conjecture; and

2] There is no reason to combine the applicant admitted prior art with Saito et al.

The examiner disagrees.

Regarding [1], the examiner only uses the magnetic filling material of Saito et al. to replace the magnetic structure of AAPA. As for the inherently concave/convex structure of Saito et al., the magnetic filling [16] when solidified in the gap, it would inherently forms a concave/convex surface.

Regarding [2], Saito et al. teaches that the magnetic filling material disposed in the gap would control the magnetic field or the inductance of the device.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T NGUYEN whose telephone number is 703-308-0821. The examiner can normally be reached on M-F 8:30-6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 703-308-7619. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TTN *TTN*

Tuyen Nguyen